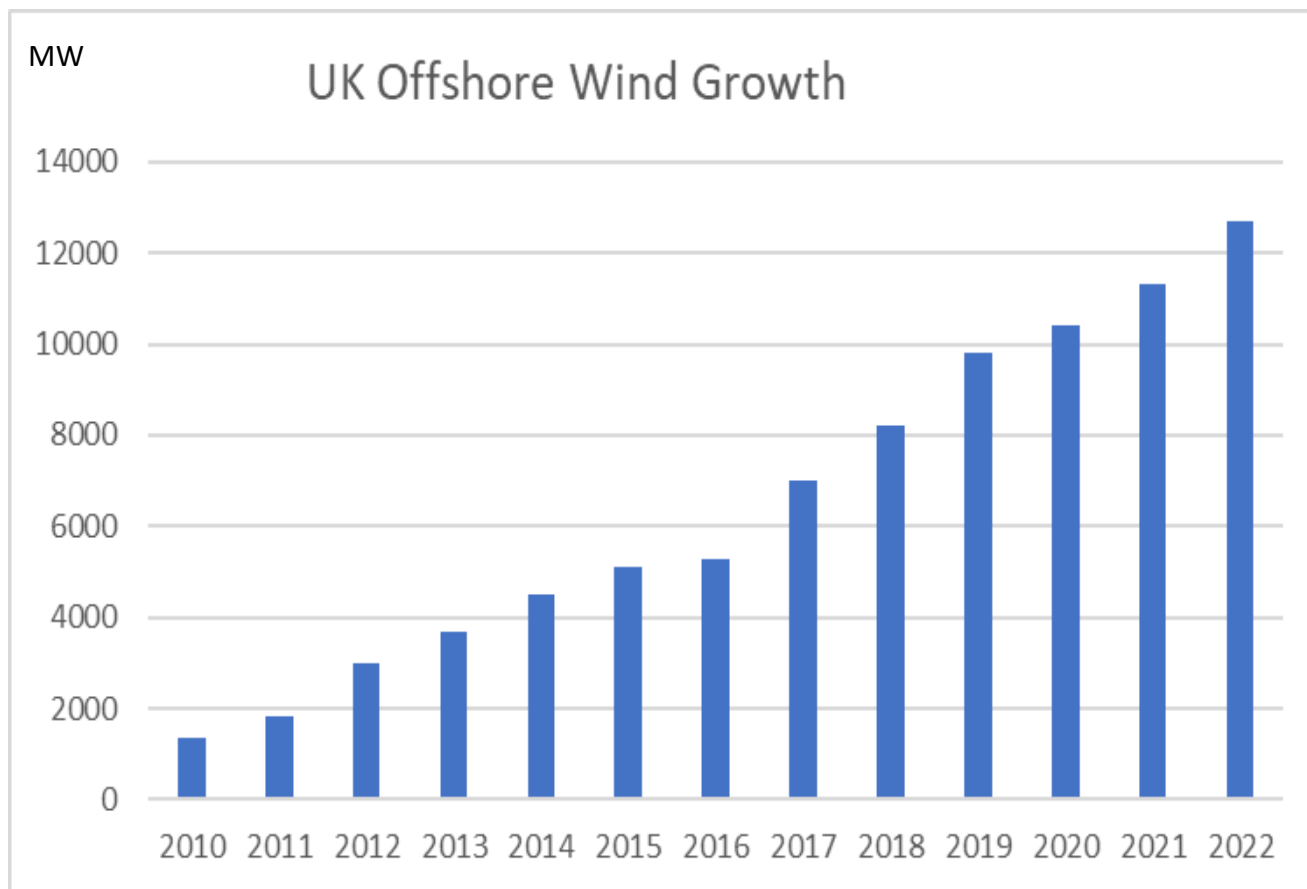

Ambition and Policy.

Si Dilks

Head of Renewable and Nuclear innovation.

BEIS.





Targets / Ambitions

2019 (Offshore Wind Sector Deal)

– 30GW of offshore wind by 2030

2019

– UK passes law committing to net zero by 2050

2020 (10 Point Plan for Green Industrial Revolution)

– 40GW of offshore wind by 2030 including 1GW of floating wind

2021

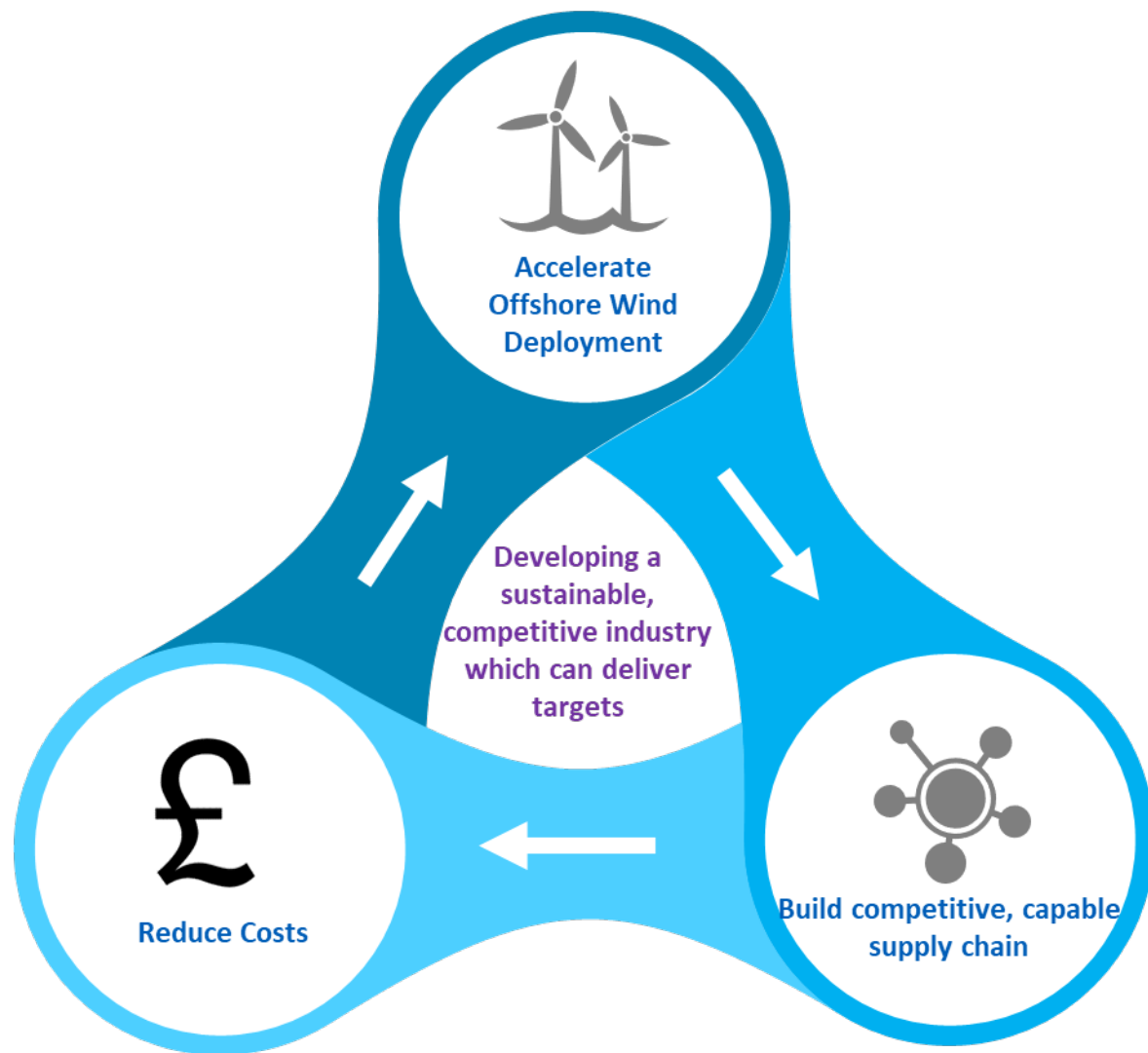
– UK commits to decarbonise power sector by 2035

2022 (British Energy Security Strategy)

– up to 50GW of offshore wind by 2030 including up to 5GW of floating wind



CHALLENGES



Our approach

Collaboration – partnerships with the sector e.g. Cost Reduction Task Force, Offshore Wind Industry Council, Sector Deal.



Competition – through Contract for Difference auctions driving down costs.

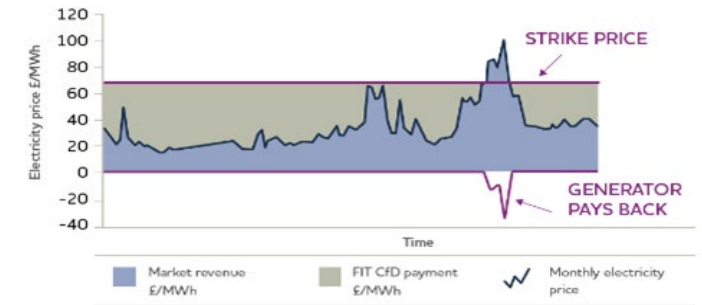
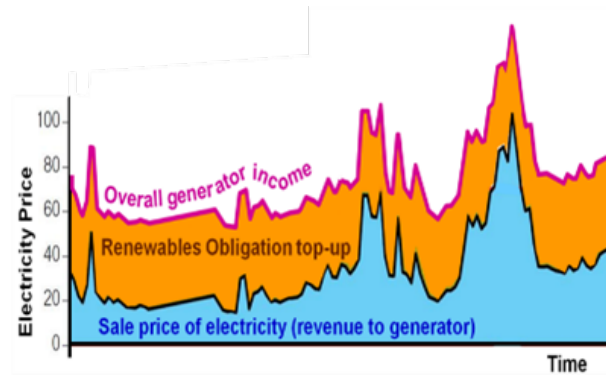
Certainty and bankability – through public, long term ambition and our support schemes (Renewables Obligation and Contracts for Difference) – help reduce cost of capital.

Supporting supply chain investments - £160m OWMIS, £160m FLOWMIS

Innovation – Supporting RD&D in Floating Offshore wind, Radar Mitigation and Composites.

UNDERPINNING INVESTMENT AND DRIVING DEPLOYMENT

UK support schemes have evolved as the market has evolved



Capital Grant

Typically 10% of capex.
Helped first, small projects.
Not suitable for mass deployment.

Renewables Obligation

Green Certificate. Fixed number of ROCs per MWh for all projects in addition to wholesale price, for 20 years. Helped drive deployment but not cost reduction.

Contract for Difference

Top up to wholesale price provides fixed income per MWh for 15 years, index linked. Price decided by auction. Promotes competition and helped drive down costs. Two way so protects consumers.



Why We Are Looking To Develop Ports And Manufacturing For Floating Wind In The UK – Example: Kincardine Floating Offshore Windfarm Off Aberdeenshire



The bases were made in northwest Spain in a yard that can make three at once



They were loaded on a barge...



And towed to Rotterdam...



Where the rest of the turbine was attached to the base...



Before being towed out to Scotland



One turbine waited in Dundee docks for an installation window



Another went direct to the site (480 nautical miles!)



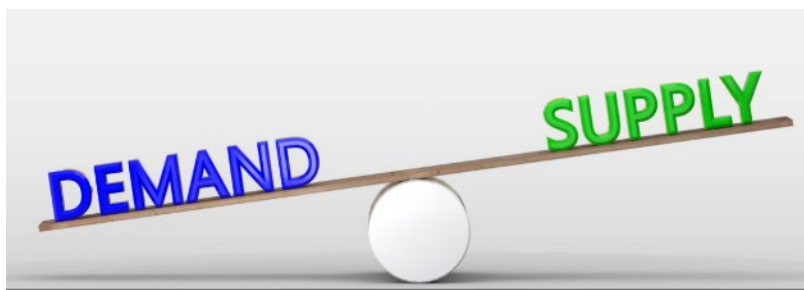
The six-turbine 50MW prototype project is now operational

- ✓ Just about workable for small demo projects though expensive
- ✗ No serial production in making turbine bases means no economy of scale.
- ✗ No ability to marshal & install turbines at scale.
- ✗ Multiple stops make the whole process inefficient and more expensive.

FUTURE CHALLENGES: MEETING 50GW BY 2030 AND NET ZERO



Time from concept to electricity generation is too long.
British Energy Security Strategy commits us to speeding up project lifecycle.
Set up new **Offshore Wind Acceleration Task Force** and appointed **Offshore Wind Champion**.



Many countries now looking to increase OW targets.
Can supply chain respond quickly enough?
Can we help bring forward new manufacturing and ports investment quickly?

